

ULTRA-COARSE, MONOCRYSTALLINE TUNGSTEN CARBIDE  
AND A PROCESS FOR THE PREPARATION THEREOF,  
AND HARDMETAL PRODUCED THEREFROM

ABSTRACT OF THE DISCLOSURE

A process is described for the preparation of tungsten and/or molybdenum metal powder or carbide by reducing and optionally carburizing treatment of tungsten and/or molybdenum oxide powder in the presence of alkali metal compounds, wherein at least two alkali metal compounds are used in a ratio so that mixed alkali tungstate or molybdate potentially formed in an intermediate step  $((\text{Li}, \text{Na}, \text{K})_z \text{WO}_z, (\text{Li}, \text{Na}, \text{K})_z \text{MoO}_z)$  has a melting point of less than  $550^\circ\text{C}$ , wherein  $z$  is from 3 to 4.